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09/859,609	05/17/2001	Eiichi Naito	5077-000043	4991

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EXAMINER

PANNALA, SATHYANARAYA R

ART UNIT PAPER NUMBER

2177

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/859,609

Applicant(s)

NAITO ET AL.

Examiner

Sathyanarayan Pannala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Herz (U.S. Patent 6,029,195).

3. Herz anticipated independent claim 1 by the following:

"document storage means for storing the plurality of documents" at col. 9, lines 26-30;

"feature amount extraction means for extracting a feature amount of each of the plurality of documents stored in the document storing means" at col. 11, lines 44-50;

"clustering means for classifying the plurality of documents stored in the document storage means into a plurality of clusters based on the extracted feature amounts so that each cluster includes one document or a plurality of documents having feature amounts similar to each other" at col. 27, line 62 to col. 28, line 12;

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“document retrieval means for retrieving a document satisfying a retrieval condition input by the user among the plurality of documents stored in the document storage means” at col. 31, lines 55-67;

“interface means for presenting the retrieved document together with the rest of documents included in a cluster to which the retrieved document belongs if the cluster includes a plurality of documents, as retrieval results” at Fig. 2, col. 34, lines 56-64.

4. Herz anticipated dependent claim 2, “from each of the plurality of documents stored in the document storage means, the feature amount extraction means extracts, as the feature amount, a feature vector including as elements a pair of a term appearing in the document and a weight with which the term characterizes the document” at Fig. 2, col. 46, line 66 to col. 47, line 8.

5. Herz anticipated dependent claim 3, “the clustering means adopts a way of clustering that provides the largest number of clusters each including a plurality of documents” at Fig. 2, col. 50, lines 36-38.

6. Herz anticipated dependent claim 4, “further comprising cluster label preparation means for preparing a plurality of cluster labels respectively representing the contents of the plurality of clusters, wherein the interface means presents a cluster label representing the contents of the cluster to which the retrieved document belongs among the plurality of cluster labels prepared, together with the retrieval results” at Fig. 5, col. 72, lines 1-9.

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7. Herz anticipated dependent claim 5, "for each of the plurality of clusters, the cluster label preparation means selects one or a plurality of terms characterizing the cluster from all documents belonging to the cluster as the cluster label" at Fig. 5, col. 72, lines 27-63.

8. Herz anticipated dependent claim 6, "for each of the plurality of clusters, the cluster label preparation means selects one sentence characterizing the cluster from all documents belonging to the cluster as the cluster label" at col. 86, line 67 to col. 87, line 4.

9. Herz anticipated dependent claim 7, "comprising document label preparation means for preparing a plurality of document labels respectively representing the contents of the plurality of documents stored in the documents storage means, wherein the interface means presents document labels representing the contents of the documents included in the cluster to which the retrieved document belongs among the plurality of document labels prepared, together with the retrieval results" at Fig. 5, col. 72, lines 10-26.

10. Herz anticipated dependent claim 8, "for each of the plurality of documents stored in the document storage means, the document label preparation means selects one sentence characterizing the document from all sentences in the document as the document label" at Fig. 2, 10, col. 65, lines 19-48.

11. Herz anticipated dependent claim 9, "the plurality of documents includes a plurality of question documents and a plurality of answer documents associated with each other, the retrieval condition is a natural language user question, the feature

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amount extraction means extracts a feature amount of each of the plurality of answer documents stored in the document storage means to enable the plurality of answer documents to be classified into a plurality of clusters by the clustering means, the information retrieval system further comprises similarity operation means for calculating similarity between each of the plurality of question documents stored in the document storage means and a document of the user question, the document retrieval means retrieves a question document having high similarity among the plurality of question documents stored in the document storage means based on the calculated similarity, and retrieves an answer document associated with the retrieved question document among the plurality of answer documents stored in the document storage means, and the interface means presents the retrieved answer document together with the rest of answer documents included in a cluster to which the retrieved answer document belongs if the cluster is composed of a plurality of answer documents, as the retrieval results" at col. 74, lines 7-28.

12. Herz anticipated dependent claim 10, "the interface means presents the retrieval results to the user" at col. 2, lines 25-27.

13. Herz anticipated dependent claim 11, "the interface means receives selection of an answer document among the presented retrieval results by the user, and the information retrieval system further comprises document updating means for retrieving a question document associated with the selected answer document among the plurality of question documents stored in the document storage means, and, if the similarity between the retrieved question document and the document of the user question is

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lower than a predetermined value, newly storing the document of the user question in the document storage means in association with the selected answer document” at col. 3, line 54 to col. 4, line 3.

14. Herz anticipated dependent claim 12, “the interface means presents the retrieval results to an expert together with the document of the user question, and presents an answer document selected by the expert among the presented retrieval results to the user” at col. 12, line 61 to col. 4, line 41.

15. Herz anticipated dependent claim 13, “comprising document updating means for retrieving a question document associated with the selected answer document among the plurality of question documents stored in the document storage means, and, if the similarity between the retrieved question document and the document of the user question is lower than a predetermined value, newly storing the document of the user question in the document storage means in association with the selected answer document” at Fig. 5, col. 71, lines 20-29.

16. Herz anticipated dependent claim 14, “the interface means presents the retrieval results to an expert together with the document of the user question, and presents to the user a natural language answer document input by the expert with reference to the presented retrieval results” at col. 86, lines 25-37.

17. Herz anticipated dependent claim 15, “comprising document updating means for newly storing the document of the user question and the input answer document in association with each other in the document storage means if the similarity between

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each of the plurality of answer documents stored in the document storage means and the input answer document is lower than a predetermined value” at col. 73, lines 44-65.

18. Herz anticipated independent claim 16 by the following:

“document storage means for storing a plurality of question documents and a plurality of answer documents associated with each other” (documents could be questions and answers) at col. 9, lines 26-30;

“similarity operation means for calculating similarity between each of the plurality of question documents stored in the document storage means and a document of a user question when the user question in natural language is input by the user” at col. 76, lines 44-66;

“document retrieval means for retrieving a plurality of question documents having high similarity among the plurality of question documents stored in the document storage means based on the calculated similarity, and retrieving answer documents associated with the respective retrieved question documents among the plurality of answer documents stored in the document storage means” at col. 31, lines 55-67;

“interface means for presenting to an expert the plurality of retrieved answer documents together with the document of the user question, and presenting to the user an answer document selected from the presented retrieval results by the expert or a natural language answer document input by the expert with reference to the presented retrieval results” at col. 86, lines 25-37.



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19. Herz anticipated dependent claim 17, "comprising document updating means for retrieving a question document associated with the selected answer document among the plurality of question documents stored in the document storage means, and, if the similarity between the retrieved question document and the document of the user question is lower than a predetermined value, newly storing the document of the user question in the document storage means in association with the selected answer document" at Fig. 5, col. 71, lines 20-29.

20. Herz anticipated dependent claim 18, "comprising document updating means for newly storing the document of the user question and the input answer document in association with each other in the document storage means if the similarity between each of the plurality of answer documents stored in the document storage means and the input answer document is lower than a predetermined value" at col. 73, lines 44-65.

### ***Conclusion***

21. The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.


22. If a reference indicated, as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is (703) 305-9601 for faster service.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (703) 305-3390. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
Sathyanarayan Pannala  
Examiner  
Art Unit 2177

srp  
October 19, 2003

  
GRETA ROBINSON  
PRIMARY EXAMINER